



Effective Health Care

Comparative Effectiveness and Safety of Radiotherapy Treatments for Head and Neck Cancer Nomination Summary Document

Results of Topic Selection Process & Next Steps

- *Comparative Effectiveness and Safety of Radiotherapy Treatments for Head and Neck Cancer* will go forward as an update to or expansion of an existing comparative effectiveness or effectiveness review.
- The protocol for the update/expansion of an existing comparative effectiveness review is now available at: <http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?pageaction=displayproduct&productid=1852>

Topic Description

Original Key Questions:

1. What is the comparative effectiveness of intensity-modulated radiation therapy (IMRT), three-dimensional conformal radiation therapy (3DCRT), two-dimensional radiation therapy (2DRT) and proton beam therapy regarding adverse events and quality of life?
2. What is the comparative effectiveness of IMRT, 3DCRT, 2DRT, and proton beam therapy regarding tumor control and patient survival?
3. Are there differences in comparative effectiveness of IMRT, 3DCRT, 2DRT, and proton beam therapy for specific patient and tumor characteristics?
4. Is there variation in comparative effectiveness of IMRT, 3DCRT, 2DRT, and proton beam therapy because of differences in user experience, target volume delineation, or dosimetric parameters?

Considerations

- This topic was found to be best suited to move forward as an update to or expansion of the existing AHRQ report published in 2010 titled *Comparative Effectiveness and Safety of Radiotherapy Treatments for Head and Neck Cancer*. Based on the research protocol, the following key questions will be addressed in the updated review:

Key Question 1: What is the comparative effectiveness of 3DRT, IMRT, SBRT, and PBRT regarding adverse events and QoL?

Key Question 2: What is the comparative effectiveness of 3DRT, IMRT, SBRT, and PBRT regarding tumor control and patient survival?

Key Question 3: Are there differences in comparative effectiveness of 3DRT, IMRT, SBRT, and PBRT for specific patient and tumor characteristics?

Key Question 4: Is there variation in comparative effectiveness of 3DRT, IMRT, SBRT, and PBRT because of differences in user experience, treatment planning, treatment delivery, and target volume delineation?

- A review of the literature, published since the last search date of the 2010 AHRQ systematic review indicates that there are new technologies, such as stereotactic body radiation therapy (SBRT), for which there is sufficient evidence to warrant an update. The update may also exclude treatments that are no longer being used in clinical practice. For example, since the 2010 AHRQ review was published, 2DRT has fallen out of use in the US.